

REMARKS

Amendments

The specification has been amended to insert a related applications paragraph, to insert SEQ ID NOS: and to correct grammatical errors. No new matter has been added.

Please charge any fees that may be due in this matter to Deposit Account No. 08-0380. A copy of this transmittal is enclosed for accounting purposes.

Respectfully submitted,

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# MARKED UP VERSION OF AMENDMENTS

## Specification Amendments Under 37 C.F.R. § 1.121(b)(1)(iii)

Replace the paragraph at page 42, lines 5 through 8 with the below paragraph marked up by way of bracketing and underlining to show the changes relative to the previous version of the paragraph.

“control” array:

background: [substrate]-OPO<sub>2</sub><sup>(-)</sup>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>6</sub><sup>-MeNPOC</sup> (unphotolysed)

foreground: [substrate]-O[PO<sub>2</sub><sup>(-)</sup>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>6</sub>]-OPO<sub>2</sub><sup>(-)</sup>-

(<sup>3</sup>GACTTGCCATCGTAGAACTG<sup>5</sup>(SEQ ID NO:1))

Replace the paragraph at page 42, lines 25 through 29 with the below paragraph marked up by way of bracketing and underlining to show the changes relative to the previous version of the paragraph.

test arrays:

background: [substrate]-O[PO<sub>2</sub><sup>(-)</sup>O(CH<sub>2</sub>)<sub>3</sub>O]<sub>m</sub>(PO<sub>2</sub><sup>(-)</sup>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>6</sub>)<sub>n</sub>OPO<sub>2</sub>  
O<sup>3</sup>-(G)<sup>5'OH</sup>

foreground: [substrate]-O[PO<sub>2</sub><sup>(-)</sup>O(CH<sub>2</sub>)<sub>3</sub>O]<sub>m</sub>(PO<sub>2</sub><sup>(-)</sup>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>6</sub>)<sub>n</sub>OPO<sub>2</sub><sup>(-)</sup>  
[<sup>(-)</sup>O<sup>3</sup>-(GACTTGCCATCGTAGAACTG<sup>5</sup>(SEQ ID NO:1))

Replace the paragraph at page 43, lines 1 through 6 with the below paragraph marked up by way of bracketing and underlining to show the changes relative to the previous version of the paragraph.

Array hybridization: The control and test arrays were then hybridized with a solution of the complementary 5'-biotinylated target oligonucleotide ( $5'$ CTGAACGGTAGCATCTTGAC $3'$ (SEQ ID NO:2)) and the bound oligonucleotide target was then “stained” with a solution of phycoerythrin-streptavidin conjugate (“SAPE”, Molecular Probes, Inc.) Using the following standard GeneChip™ protocols on an [a] Affymetrix hybridization station:

Replace the paragraph at page 45, lines 1 through 5 with the below paragraph marked up by way of bracketing and underlining to show the changes relative to the previous version of the paragraph.

The “control” array was prepared exactly as described for the control arrays in Example 1:

background: [substrate]-OPO<sub>2</sub><sup>(-)</sup>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>6</sub><sup>-O-MeNPOC</sup> (non-photolysed)

foreground: [substrate]-O[PO<sub>2</sub><sup>(-)</sup>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>6</sub>]-OPO<sub>2</sub><sup>(-)</sup>O-  
( $3'$ GACTTGCCATCGTAGAACTG $5'$ (SEQ ID NO:1))

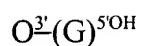
Replace the paragraph at page 45, lines 12 through 14 with the below paragraph marked up by way of bracketing and underlining to show the changes relative to the previous version of the paragraph.

background: [substrate]-OPO<sub>2</sub><sup>(-)</sup>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>6</sub><sup>-OH</sup> (photolysed)

foreground: [substrate]-O[PO<sub>2</sub><sup>(-)</sup>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>6</sub>]-OPO<sub>2</sub><sup>(-)</sup>O-  
( $3'$ GACTTGCCATCGTAGAACTG $5'$ (SEQ ID NO:1))

Replace the paragraph at page 45, lines 19 through 21 with the below paragraph marked up by way of bracketing and underlining to show the changes relative to the previous version of the paragraph.

background: [substrate]-O[PO<sub>2</sub><sup>(-)</sup>O(CH<sub>2</sub>)<sub>3</sub>O]<sub>m</sub>(PO<sub>2</sub><sup>(-)</sup>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>6</sub>)-OPO<sub>2</sub><sup>(-)</sup>



foreground: [substrate]-O[PO<sub>2</sub><sup>(-)</sup>O(CH<sub>2</sub>)<sub>3</sub>O]<sub>m</sub>(PO<sub>2</sub><sup>(-)</sup>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>6</sub>)-OPO<sub>2</sub><sup>(-)</sup>O<sup>3'</sup>  
 (GACTTGCCATCGTAGAACTG<sup>5'OH</sup> (SEQ ID NO:1))

Replace the paragraph at page 45, line 24 through page 46, line 2 with the below paragraph marked up by way of bracketing and underlining to show the changes relative to the previous version of the paragraph.

Hybridization: Arrays were hybridized with a solution of the complementary 5'-biotinylated target oligonucleotide (5'-CTGAACGGTAGCATCTTGAC<sup>3'</sup>(SEQ ID NO:2)) spiked into a GeneChip test sample at 100pM final concentration. The GeneChip test sample was prepared according to protocols provided with the Affymetrix P450 assay kit package insert. It is essentially prepared from an unpurified multiplex PCR reaction, which is fragmented with DNase-I, and labelled with biotin dideoxyATP in the presence of terminal transferase. In some cases, 1 mg/ml of bovine serum albumen (BSA) was also included in the sample to examine its [it's] ability to provide further reduction in the NSB. Hybridization, SAPE staining, washing and scanning were performed as described in Example 1 above.